

U.S. EPA
COVER PAGE

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Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: MODSW846 6020A
Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: _____ SDG No.: RB-01
SOW No.: N/A

EPA Sample No.

RB-01
RB-01(D)
RB-01(S)
RB-01(L)
RB-02

Lab Sample ID

A-1-1
RB-01(D)
RB-01(S)
RB-01(L)
RB-02

	ICP-AES	ICP-MS
Were ICP-AES and ICP-MS interelement corrections applied? (Yes/No)	_____	<u>No</u>
Were ICP-AES and ICP-MS background corrections applied? (Yes/No)	_____	<u>No</u>
If yes, were raw data generated before application of background corrections? (Yes/No)	_____	<u>No</u>

Comments:

(D) = laboratory matrix duplicate sample, (S) = laboratory matrix spike
sample (L) = Serial Dilution sample

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STANDARD OPERATING PROCEDURE

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Case# <u>Jewett1</u>	Site <u>Jewett Lead</u>	Matrix Soil: <u>00</u>
SDG# <u>RB-01</u>	Lab <u>U.S. EPA Region 2 Mobile Lab</u>	Water: <u>02</u>
Contractor <u>Not Applicable</u>	Reviewer <u>Robert Finke</u>	Other: <u>00</u>

A.2.1 Validation Flags-

The following flags have been applied in red by the data validator
Which must be considered by the data user.

- J - This flag indicates that a result is qualified as estimated.
- UJ - This flag indicates that the analyte was analyzed but not detected
And is to be considered as estimated because it may be inaccurate
or imprecise.
- R - This flag indicates that the sample result is to be considered
unusable due to significant error and must not be used by the data
user.

Fully Usable Data -

Results which carry a "J" or "UJ" are considered to be fully usable.

Contractual Qualifiers -

The legend of the contractual qualifiers applied by the laboratory
On the Form I's are found on page B-20 of SOW ILM04.0.

A.2.2 The data assessment is given below and on the attached data sheets

This SDG (RB-01) consists of two water samples collected between December 17-18, 2008 from the Jewett Lead Superfund site on Staten Island, NY. The samples were prepared January 2, 2009 and analyzed on February 6, 2008 by the U.S. EPA Region 2 Mobile Analytical Laboratory for the 22 routine Target Analyte List (TAL) metals with full Contract Laboratory Program (CLP) Quality Control (QC). This analysis was conducted according to SOP MAL-3.07A which is based upon U.S. EPA CLP SOW ILM04.0, SW-846 Method 6010A, and the U.S. EPA Region 2 DESA Laboratory protocol. Upon completion of this analysis and compiling the results, a formal validation was performed to assure the data contained in this analytical report are of appropriate quality. This being performed as part of the requirements of the Quality Assurance (QA) program put forth for the U.S. EPA Region 2 Mobile Analytical Laboratory to ensure its proper operation. This review and evaluation was carried out according to the U.S. EPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review

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And U.S. EPA Region 2 Data Validation SOP *Evaluation of Metals Data for the Contract Laboratory Program (CLP) based on SOW. 3/90, Rev. XI.* It applies to a systematic approach for examining analytical results to identify and assess the indication of bias to render an overall determination of data usability. In doing so, the data user is assured as to how well a given set of analytical results will conform to the established environmental monitoring performance criteria defined for their project. In accordance, the following qualifications are applied to this data set which must be considered when utilizing these results to make sound environmental decisions.

1. Calibration

The results of several Initial Calibration Verification (ICV) determinations yielded recoveries which were not within the specified control limits of 90 - 110%R. This requires that the associated results be qualified as estimated "J" in the affected environmental samples, resulting in the following required action(s.)

Element	%R	Qualification	Sample(s) Qualified
Manganese	113	J	RB-01, RB-02
Thallium	111	J	RB-01, RB-02
Zinc	89	J	RB-01, RB-02

The results of a Continuing Calibration Verification (CCV) determination yielded a recovery which was not within the specified control limits of 90 - 110%R. This requires that the associated results be qualified as estimated "J" in the affected environmental samples, resulting in the following required action(s.)

Element	%R	Qualification	Sample(s) Qualified
Manganese	119	J	Previously Qualified for ICV

2. Laboratory Control Sample

The Laboratory Control Sample (LCS) "found" value for silver was greater than the upper acceptable range and has therefore been qualified estimated "J" in samples RB-01 and RB-02.

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

RB-01

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett/Key QC NRAS No.: _____ SDG No.: RB-01

Matrix: (soil/water) Water Lab Sample ID: RB-01

Level: (low/med) Low Date Received: 12/17/08

% Solids: N/A

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): $\mu\text{g/L}$

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	0.52	U		MS
7440-36-0	Antimony	3.08	B		MS
7440-38-2	Arsenic	1.92	B		MS
7440-39-3	Barium	0.80	B		MS
7440-41-7	Beryllium	0.30	U		MS
7440-43-9	Cadmium	0.09	U		MS
7440-70-2	Calcium	1.65	U		MS
7440-47-3	Chromium	14.10			MS
7440-48-4	Cobalt	0.19	B		MS
7440-50-8	Copper	39.50			MS
7439-89-6	Iron	2670.00			MS
7439-92-1	Lead	25.20			MS
7439-95-4	Magnesium	44.40	B		MS
7439-96-5	Manganese	14.70	B	J	MS
7439-97-6	Mercury	0.05	U		MS
7440-02-0	Nickel	4.01	B		MS
7440-09-7	Potassium	452.00	B		MS
7782-49-2	Selenium	6.85	B		MS
7440-22-4	Silver	0.01	U	J	MS
7440-23-5	Sodium	2110.00	B		MS
7440-28-0	Thallium	1.40	B	J	MS
7440-62-2	Vanadium	1.52	B		MS
7440-66-6	Zinc	0.16	U	J	MS

Color Before: Clear

Clarity Before: Clear

Texture: None

Color After: Clear

Clarity After: Clear

Artifacts: None

B - Detected value < the Contract Required Detection Limit (CRDL)
U - Undetected value < the Instrument Detection Limit (IDL)
J - Estimated concentration due to data validation criteria.

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1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

RB-02

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett/Key QC NRAS No.: _____ SDG No.: RB-01

Matrix: (soil/water) Water

Lab Sample ID: RB-02

Level: (low/med) Low

Date Received: 12/17/08

* Solids: N/A

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): $\mu\text{g/L}$

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	0.52	U		MS
7440-36-0	Antimony	2.49	B		MS
7440-38-2	Arsenic	1.53	B		MS
7440-39-3	Barium	0.03	U		MS
7440-41-7	Beryllium	0.30	U		MS
7440-43-9	Cadmium	0.09	U		MS
7440-70-2	Calcium	157.00	B		MS
7440-47-3	Chromium	24.10			MS
7440-48-4	Cobalt	0.02	U		MS
7440-50-8	Copper	46.10			MS
7439-89-6	Iron	41.80	B		MS
7439-92-1	Lead	0.02	U		MS
7439-95-4	Magnesium	16.01	B		MS
7439-96-5	Manganese	0.99	B	J	MS
7439-97-6	Mercury	0.05	U		MS
7440-02-0	Nickel	6.35	B		MS
7440-09-7	Potassium	233.00	B		MS
7782-49-2	Selenium	6.64	B		MS
7440-22-4	Silver	0.01	U	J	MS
7440-23-5	Sodium	1780.00	B		MS
7440-28-0	Thallium	0.69	B	J	MS
7440-62-2	Vanadium	1.11	B		MS
7440-66-6	Zinc	0.16	U	J	MS

Color Before: Clear

Clarity Before: Clear

Texture: None

Color After: Clear

Clarity After: Clear

Artifacts: None

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

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